

Internal EMS Audit – EMS Element 16.0

EMS Procedure Rev	Approval Signature:	Effective Date: Oct. 06, 2014
----------------------	---------------------	----------------------------------

Purpose:

The Internal EMS Audit is used to regularly analyze the EMS for biosolids to determine whether the Village Creek Water Reclamation Facility is effectively meeting its Biosolids Management Policy, program requirements, and program goals and objectives.

Scope:

This procedure applies to all EMS elements throughout the biosolids value chain.

Definitions:

Environmental Management System Audit – A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's environmental management system conforms to the environmental management system audit criteria set by the organization, and for communication of the results of this process to management.

Audit Criteria – Policies, practices, procedures, or requirements against which the auditor compares collected audit evidence about the subject matter. (Note: requirements may include but are not limited to standards, guidelines, specified organizational requirements, and legislative or regulatory requirements.)

Audit Findings – Results of the evaluation of the collected audit evidence compared with the agreed audit criteria.

Responsibility: The Biosolids EMS Manager is responsible for:

- Selecting the audit team
- Determining audit scope
- Providing the list of resource personnel for the audit
- Preparing the necessary facilities for the audit
- Scheduling the necessary management interviews the audit requires.

Internal Audit Team is responsible for the following during the Internal Audit:

- Identifying the Lead Auditor and qualifications of auditors
- Preparing the audit agenda
- Conducting the audit
- Preparing the audit report.

EMS Team, EMS Management Team, Biosolids Contractor and Village Creek WRF personnel are responsible for:

- Participating in the Internal Audit
- Acting on the Internal Audit Team when needed

Procedure:

Internal Audits: Internal audits are conducted by the City of Fort Worth and follow one of the following two formats as required by the EMS Planning Schedule (Located at the back of the EMS Manual).



Internal EMS Audit - EMS Element 16.0

<u>Interim Audits</u> – If a third party auditor is not utilized then the City shall conduct interim audits that cover the biosolids EMS management activities performed by the Contractor and the City. City conducted interim audits are similar in scope and procedure to the National Biosolids Partnership (NBP) interim third party audits. Interim audits shall meet the following criteria:

Auditor Selection: The Biosolids EMS Manager assigns personnel experienced with the NPB audit process to conduct the interim audits.

Audit Plan: Prior to the interim audit the Biosolids EMS Manager meets with the Audit Team to develop an audit plan.

Identification of Lead Auditor & Auditor Qualifications: The Audit Team selects the lead auditor. The lead auditor's qualifications must be stated.

Auditor Criteria: The Audit Team uses the criteria established in the National Biosolids Partnership Third Party Verification Auditor Guidance and associated updates.

Audit Resource Personnel: The Biosolids EMS Manager provides a list of resource personnel from Village Creek Water Reclamation Facility and from the EMS Team that aids the auditors.

Facilities: The Biosolids EMS Manager also coordinates the necessary facilities for the auditors and any personnel that the auditors would like to interview.

Audit Scope: The Interim Audit Team audits the identified Elements in the appropriate year and follows the Audit Schedule from Table 1 below.

<u>Pre-Interim Audit</u> – The City conducts pre-interim audits prior to third party audits. Pre-interim audits focus on the biosolids program's overall environmental performance, its compliance status, EMS Goals & Objectives and an evaluation of all Corrective Action Notices (CANs) from the previous reporting year (August 1-July 31) up to the date of pre-interim audit. The City's pre-interim audit shall also verify that annual EMS Management Review Meetings and the Annual EMS Performance Reports have been completed.

Schedule: The NBP third party Interim and Verification audits occur as follows:

- Year 6 Interim Audit (third party audit required) & Pre-Interim Audit
- Year 7 Interim Audit (third party audit required) & Pre-Interim Audit
- Year 8 City Interim Audit (third party audit optional*)
- Year 9 City Interim Audit (third party audit optional*)
- Year 10 Verification Audit & Pre-Interim Audit

*If third party audit is utilized then the City must conduct a pre-interim audit

Issue Date: October 06, 2014 Element 16.0 Page 2 of 5



Internal EMS Audit - EMS Element 16.0

Table 1: AUDIT SCHEDULE FOR INTERIM AUDITS - VILLAGE CREEK

AREA	ELEMENT	YR5	YR6	YR7	YR8	YR9	YR10
		(2010)	(2011)	(2012)	(2013)	(2014)	(2015)
		Verification	Interim	Interim	Interim	Interim	Verification
		3 rd Party	3rd Party & Pre- Interim Audit*	3 rd Party & Pre- Interim Audit*	By VC or 3 rd party*	By VC or 3 rd party*	By 3 rd Party & Pre- Interim Audit*
Policy	1. Documentation of EMS	Х	Х	Х	Х	Х	Х
	Biosolids Management Policy	Х	Х	Х	Х	Х	Х
Planning	3. Critical Control Points	X			Χ		X
	Legal and Other Requirements	X	Х				Х
	5. Goals and Objectives	X	Х	X	X	Х	X
	Public Participation in Planning	Х	Х	Х			Х
Implementation	7. Roles & Responsibilities	Х	Х				Х
	8. Training	X		Х			Х
	9. Communication	Х	Х	Х			X
	10. Operational Controls	X	Х	Χ	Χ	Х	X
	11. Emergency Preparedness	X				Х	Х
	12. Document Control and Recordkeeping	X				Х	Х
Measurement and Corrective Action	13. Monitoring and measurement	Х			Х		Х
	14. Nonconformances: Preventive and corrective action	Х	Х	Х	X	Х	Х
	15. Biosolids Management Progress Performance Report	X	Х	Х	Х	Х	х
	16. Internal audits	Х				Х	Х
Management Review	17. Management Review	Χ	X	Χ	Χ	X	X
Outcomes	Environmental Performance	Х	Х	Х	Х	Х	Х
	Regulatory Compliance	X	Х	Х	Х	Х	Х
	Interested Party Relations	X	Х	Х	Х	Х	Х
	Quality Practices	Х	X	Х	Х	Х	Х
Open Nonconformances	Open Nonconformances		Х	Х	Х	Х	X

Shaded areas are required by "Elements of an EMS for Biosolids."

Issue Date: October 06, 2014 Element 16.0 Page 3 of 5

^{*}The City's pre-interim audits are required prior to third party audits. See page 2 of this element for additional details.



Internal EMS Audit – EMS Element 16.0

Audit Report & Findings: Once the Internal Audit Team completes the audit they compile and submit a report to the Biosolids EMS Manager. The report contains:

- 1. A summary of findings based on audit criteria.
- 2. Evidence of nonconformance and any recommended actions.
- 3. Recommendations of methods to share results with employees, partners, and the public.

The City uses the results of their audits to comply with the five-year EMS audit plan.

Management Review of Audit Findings: The Biosolids EMS Manager reviews the report. If the interim audit finds any nonconformance issues, the Biosolids EMS Manager discusses the deficiency with the appropriate EMS Management Team members, appropriate supervisor, employees or contractor in this area to verify the nonconformance issue.

Corrective Action Notice (CAN): A Corrective Action Notice (CAN) form, as shown and described in Element 14.0 is filled out for each nonconformance.

Preventive Measures & Recommended Solution: The Biosolids EMS Manager and the required personnel develop a schedule and a comprehensive correction action plan preventive measures and recommended solutions identified to correct any nonconformance found during the audit.

Notice of Audit Results to the Public: Once the EMS Management Team has reviewed the interim audit results and determined the best method(s) to convey the audit results, employees, partners, and the public are notified. The methods used to convey the Internal audit results are consistent with the public participation and communication methods discussed in Elements 6.0 and 9.0.

The EMS Management Team provides approved schedules and action plans to correct any nonconformance found during the interim audit. These items are a direct result of the Management Review discussed in Element 17.0.

Third-Party Audit Results: The independent third-party audit results are handled in the same manner as described above. The EMS Management Team reviews the third-party audit results, issues approved schedules, preventive measures, and action plans to correct any nonconformance found and conveys the results to employees, partners, and the public.

Schedule:

The City conducts either interim or pre-interim audits each year as described in "Internal Audits", Table 1: Audit Schedule for Interim Audits located within this element or the EMS Planning Schedule. The Biosolids EMS Manager incorporates the Internal Audit Report into the Biosolids Performance Report (Element 15.0) and the Biosolids Management Review (Element 17.0).



Internal EMS Audit - EMS Element 16.0

References: EMS Framework Guidance Manual: http://www.wef.org/Biosolids/

Code of Good Practice, (NBP): http://www.wef.org/Biosolids/

Third Party Verification Auditor Guidance, (NBP): http://www.wef.org/Biosolids/

Element 6.0 Public Participation in Planning

Element 9.0 Communication and Public Outreach

Element 12.0 Documentation and Document Control

Element 14.0 Nonconformance: Preventative and Corrective Action Element 15.0 Biosolids Program and EMS Performance Report

Element 17.0 Periodic Management Review of Performance

Revision #	Date	Revision Description
12	10/06/2014	Revised internal audit procedure to include evaluation of CANs
11	01/06/2014	Revise audit procedure in response to CAN 2013-16
10	08/26/2013	Update internal audit procedures in response to CAN 2013-05
09	08/05/2013	Updated references, procedures regarding pre-interim audits and audit report finding, updated Table 1
08	07/29/2011	Update Table 1
07	06/10/2011	Clarify interim and pre-interim audit requirements
06	11/16/2010	Update references and audit procedures (interim & internal)
05	06/29/2007	Audit (YR1) 2006
04	05/10/2006	Auditor revisions according to Management Review
03	05/26/2005	3 rd Party Audit Phase I Revisions
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

Issue Date: October 06, 2014 Element 16.0 Page 5 of 5